

In the Claims:

1. (Currently Amended) A method of fabricating a Read Only Memory (ROM) device, comprising:

forming a first conductive layer pattern including a sidewall, on an insulating layer on an integrated circuit substrate;

implanting ions into the integrated circuit substrate using the first conductive layer pattern as an implantation mask;

thermally oxidizing at least a portion of the integrated circuit substrate and at least a portion of the sidewall of the first conductive layer pattern to form a thermal oxide layer on at least the portion of the integrated circuit substrate and on the sidewall, of the first conductive layer pattern and to form a buried doping layer from the implanted ions beneath the thermal oxide layer; and

forming a second conductive layer pattern on at least a portion of the thermal oxide layer and on at least a portion of the first conductive layer pattern.

2. (Currently Amended) A method according to Claim 1 wherein the first conductive layer pattern includes a bottom adjacent the integrated circuit substrate and a top opposite the integrated circuit substrate and wherein the thermally oxidizing comprises thermally oxidizing at least a portion of the integrated circuit substrate and at least a portion of the sidewall of the first conductive layer pattern without thermally oxidizing the top and the bottom.

3. (Currently Amended) A method according to Claim 1 wherein the first conductive layer pattern comprises a first conductive layer on the insulating layer and a capping layer on the first conductive layer and wherein the following is performed between the thermally oxidizing and the forming a second conductive layer pattern: removing the capping layer.

~~removing the capping layer.~~

4. (Original) A method according to Claim 3 wherein the forming a first conductive layer pattern on an insulating layer on an integrated circuit substrate comprises:

forming an insulating layer on the integrated circuit substrate;

forming the first conductive layer on the insulating layer;
forming the capping layer on the first conductive layer;
forming a photoresist pattern on the capping layer; and
etching the capping layer and the first conductive layer using the photoresist pattern as an etch mask.

5. (Original) A method according to Claim 4 wherein the etching is followed by removing the photoresist pattern.

6. (Original) A method according to Claim 4:
wherein the following is performed between the forming a capping layer and forming a photoresist pattern:

forming an antireflection layer on the capping layer;
wherein the forming a photoresist pattern comprises forming a photoresist pattern on the antireflection layer; and
wherein the etching is followed by removing the photoresist pattern and the antireflection layer.

7. (Original) A method according to Claim 6 wherein the antireflection layer comprises an organic antireflection layer.

8. (Original) A method according to Claim 1 wherein the first and second conductive layer patterns both comprise polysilicon.

9. (Original) A method according to Claim 3 wherein the capping layer comprises silicon nitride.

10. (Original) A method according to Claim 1 further comprising selectively programming the ROM.

11. (Original) A method according to Claim 10 wherein the selectively programming comprises selectively implanting ions into the substrate.

12. (Original) A method according to Claim 3 wherein the following is performed between the forming a first conductive layer pattern and the implanting ions:

forming a hard mask on the capping layer;
forming a photoresist pattern on the hard mask;
etching the hard mask using the photoresist pattern; and
etching the first conductive layer pattern using the hard mask.

13. (Currently Amended) A method according to Claim 1 of fabricating a Read Only Memory (ROM) device, comprising:

forming a first conductive layer pattern including a sidewall on an insulating layer on an integrated circuit substrate;

implanting ions into the integrated circuit substrate using the first conductive layer pattern as an implantation mask;

thermally oxidizing at least a portion of the integrated circuit substrate and at least a portion of the sidewall of the first conductive layer pattern to form a thermal oxide layer on at least the portion of the integrated circuit substrate and on the sidewall of the first conductive layer pattern and to form a buried doping layer from the implanted ions beneath the thermal oxide layer; and

forming a second conductive layer pattern on at least a portion of the thermal oxide layer and on at least a portion of the first conductive layer pattern;

wherein a sidewall spacer is not formed on the sidewall of the first conductive layer pattern between the forming a first conductive layer pattern and the thermally oxidizing.

Claims 14-19 (Canceled).

20. (New) A method of fabricating a Read Only Memory (ROM) device, comprising:

forming a first conductive layer pattern including a sidewall on an insulating layer on an integrated circuit substrate;

implanting ions into the integrated circuit substrate using the first conductive layer pattern as an implantation mask;

thermally oxidizing at least a portion of the integrated circuit substrate and at least a portion of the sidewall of the first conductive layer pattern to form a thermal oxide layer on at least the portion of the integrated circuit substrate and on the sidewall of the first conductive layer pattern and to form a buried doping layer from the implanted ions beneath the thermal oxide layer; and

forming a second conductive layer pattern on at least a portion of the thermal oxide layer and on at least a portion of the first conductive layer pattern, wherein the second conductive layer pattern is spaced apart from the sidewall of the first conductive layer pattern.